Tourist Transport Management

Improving Leisure Travel Choices

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TDM Encyclopedia
Victoria Transport Policy Institute

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This chapter describes how to manage tourist travel for efficiency, by improving recreational travel options and reducing automobile traffic in resort areas.

Description

Tourist Transport Management (also called *Resort Community Transport Management*) involves improving transportation options for recreational travel and reducing automobile traffic in resort areas. Tourist travel has predictable patterns and needs, and often occurs in areas that have unique environmental and social features that are particularly sensitive to degradation by excessive automobile traffic. Tourist Transport Management can preserve the amenities that attract visitors to an area, whether it is an historic city center or a pristine natural environment.

Tourist Transport Management programs can include a variety of specific strategies to improve transport options, integrate alternative transportation into tourist activities, provide disincentives to drive, and promote alternative modes. These can include:

- Transit Improvements
- Shuttle Services
- Taxi Service Improvements
- Cycling and Walking Improvements
- Public Bike Systems
- Bicycle Parking
- Parking Management
- Traffic Calming, Speed Reductions and Streetscape Improvements.
- Smart Growth, New Urbanism and Access Management
- Car-Free Planning and Vehicle Restrictions.
- Marketing to encourage visitors to arrive without a car.
- Commute Trip Reduction programs for staff.
- Freight Management to minimize truck traffic.
- Aviation Transport Management
- Transportation Access Guides, which provide concise directions to reach destinations by alternative modes.
- Equipment Rentals (Bikes, Scooters, Skies, etc.).

Traffic to resort areas often peaks at particular seasons and times of the week. Visitors have particular mobility needs (e.g., travel between transport terminals, accommodations, restaurants and shops, tourists attractions, etc.) and baggage requirements (skis, surf boards, gifts to carry home). Tourist Transport Management must take these travel patterns and needs into account.

Many resort visitors will use alternative modes if they are convenient, enjoyable and Affordable. Tourist

TDM programs can involve developing car-free travel options and packages. This requires coordination to insure that visitors' mobility needs are served, and that such travel options are well Marketed. When planning a trip, potential visitors must be assured that they can arrive at their accommodations, access local activities and attractions, and carry any baggage they need, reliably and in comfort without a car.

How it is Implemented

Tourist Transport Management programs are usually implemented by regional planning agencies, a parks agency, a TDM Program, a Transportation Management Association, tourist marketing organizations, tourist-related businesses (such as a large hotel), or by organizers of a Special Event (such as a major festival). These TDM programs are often initiated to deal with specific problems (such as inadequate parking or traffic congestion during peak periods), but may expand over time with more Comprehensive Transport Planning to deal with a broader range of problems and objectives. Parks agencies can establish transit services (Cambridge Systematics, 2001), bicycle rentals and guided tours, or help private companies provide suitable services. In more isolated areas it may be implemented as part of an overall Rural Community TDM program.

Tourist Transport Management may involve policies that Restrict Automobile Travel or favor alternative modes. For example, some cities, towns and parks prohibit or limit the number of private automobiles allowed in certain areas or at certain times, and provide visitor access by shuttle services, bicycle rentals and pedestrian facility improvements. Visitor organizations or private companies may organize and publicize new car-free tour options and packages.

Travel Impacts

Travel impacts depend on the nature of the TDM strategies that are implemented, the types of trips, location, and demographics of visitors. Large travel impacts are possible. Some resorts and destination parks have virtually eliminated private vehicle traffic.

Table 1 **Travel Impact Summary**

Travel Impact	Rating	Comments
Reduces total traffic.	2	Reduces total travel.
Reduces peak period traffic.	3	Reduces traffic during peak seasons and times.
Shifts peak to off-peak periods.	0	
Shifts automobile travel to alternative modes.	3	Encourages mode shifting.
Improves access, reduces the need for travel.	0	
Increased ridesharing.	1	May include rideshare encouragement.
Increased public transit.	3	Often includes transit improvements.
Increased cycling.	3	Often includes cycling improvements.
Increased walking.	3	Often includes pedestrian improvements.
Increased Telework.	0	
Reduced freight traffic.	1	May include some freight management.

Rating from 3 (very beneficial) to –3 (very harmful). A 0 indicates no impact or mixed impacts.

Benefits And Costs

Benefits include reduced Traffic Congestion and Parking problems, road and parking facility cost savings

(particularly if road and parking facilities would otherwise be expanded to accommodate a short period of peak demand), improved community Livability and support for strategic Land Use objectives, such as preservation of environmental and cultural resources (greenspace and views, clean air, quiet, traditional customs, etc.), increased Transportation Choice (particularly for non-drivers), improved Walking and Cycling conditions, increased Road Safety, reduced impacts of tourist travel on residents, and a more enjoyable and unique experience for visitors.

Costs are primarily the financial expenses associated with developing a TDM program and providing services such as shuttle buses. Some potential visitors may be discouraged if restrictions on car use are considered burdensome or confusing.

Table 2 **Benefit Summary**

Objective	Rating	Comments
Congestion Reduction	3	Reduces peak-period vehicle traffic.
Road & Parking Savings	2	Reduces vehicle travel and trips.
Consumer Savings	2	Can increase affordable transport options.
Transport Choice	3	Increases transport choice for non-drivers.
Road Safety	2	Reduces vehicle traffic volumes and speeds.
Environmental Protection	3	Reduces vehicle traffic and pavement requirements.
Efficient Land Use	2	Reduces road and parking requirements.
Community Livability	3	Reduces traffic impacts, preserves unique community amenities.

Rating from 3 (very beneficial) to –3 (very harmful). A 0 indicates no impact or mixed impacts.

Equity Impacts

Most Tourist Transport Management programs provide services that are available to the general public and benefit a variety groups. Some involve restrictions that are particularly burdensome on certain groups (for example, restrictions on using private automobiles may limit access by people with physical disabilities who have trouble walking). Some programs involve special benefits or subsidies to a particular group or travel mode (for example, funding for transit services and shuttle buses), but not necessarily greater subsidies than the full Costs of accommodating additional automobile traffic through increased road and parking capacity. Such programs often increase the range of affordable travel options, which tends to benefit lower-income and transportation disadvantaged people, and helps provide Basic Mobility.

Table 3 **Equity Summary**

Criteria	Rating	Comments
Treats everybody equally.	2	Generally benefits all groups.
Individuals bear the costs they impose.	0	Usually requires subsidies, but these are often equal or less than subsidies to accommodate more vehicle traffic.
Progressive with respect to income.	2	Usually improves affordable transport options.
Benefits transportation disadvantaged.	3	Increases transport options for non-drivers.
Improves basic mobility.	2	Usually improves basic transport.

Rating from 3 (very beneficial) to –3 (very harmful). A 0 indicates no impact or mixed impacts.

Applications

This strategy is most appropriate for implementation in resort communities, which includes any region, city, town and rural area that attracts large numbers of visitors. Implementation is often managed by regional or local government, parks agencies or business associations.

Table 4 **Application Summary**

Geographic	Rating	Organization	Rating
Large urban region.	2	Federal government.	1
High-density, urban.	2	State/provincial government.	2
Medium-density, urban/suburban.	2	Regional government.	3
Town.	2	Municipal/local government.	3
Low-density, rural.	2	Business Associations/TMA.	3
Commercial center.	2	Individual business.	3
Residential neighborhood.	2	Developer.	2
Resort/recreation area.	3	Neighborhood association.	2
		Campus.	2

Ratings range from 0 (not appropriate) to 3 (very appropriate).

Category

TDM Program

Relationships With Other TDM Strategies

Tourism trip management can include a variety of specific TDM strategies, including Transit Improvements, Cycling and Walking Improvements, TDM Marketing, Transportation Access Guides and Commute Trip Reduction programs for employees. Parking Management, Parking Pricing and Traffic Calming are often important components of resort community TDM. It can also include Smart Growth, New Urbanism, Context Sensitive Design and Access Management strategies to better integrate transportation and land use planning. Many resort areas implement various types of Car-Free Planning, Vehicle Restrictions and Freight Management. This strategy overlaps Special Event Trip Management.

Stakeholders

Stakeholders can include tourism businesses and communities, various government agencies, travel services, visitors, and employees.

Barriers To Implementation

Program funding is often a major barrier. Some businesses and community members may oppose policies that restrict automobile use on the grounds that they discourage visitors.

Best Practices

Tourist TDM planning should:

- Make it affordable, convenient and enjoyable to visit a resort community without using a private automobile.
- Coordinate stakeholders (tourist agencies, transportation providers, hotels, resorts) to provide and promote car-free travel packages.

- Provide detailed information on the travel choices that are available and how to use them.
- Take into account visitors' transport needs and preferences, including baggage requirements and the need to accommodate changing schedules.
- Provide benefits to visitors who arrive without a car, such as priority access for buses.
- Include Commute Trip Reduction programs to reduce employee trips.
- Create functional and attractive pedestrian and cycling facilities.

Wit and Humor

Three friends take a sailing trip together through the tropical Indian Ocean, but their boat is wrecked on a beautiful desert island in a storm. They make the best of it, building shelters and finding plenty of food. They even brew coconut beer.

After a few weeks an ancient bottle washes up on the beach. When they open it, a genie comes out. "You must give us each three wishes for freeing you," one of the friends says. The genie scowls at this demand and replies, "I'll give you each ONE wish, and that's it."

The first friend doesn't hesitate a second. "I wish to be returned home," he says. Poof – he disappears.

The second friend thinks for a few seconds, then smiles and says, "I wish to be returned home with my pockets full of gold coins and jewels." Poof – he disappears.

The third friend ponders for a minutes, then says, "I really enjoy this lovely island. I'd like to stay here, but I sure will be lonely. I wish that my two friends were back here with me."

Examples and Case Studies

Seattle Area Car Free Getaways (www.cityofseattle.net/carsmart/carfree.htm)

The City of Seattle's *Car Smart Communities* program provides information on car-free holiday trips in the Puget Sound region, including specific information on transit, train, cycling and walking adventures.

NETS - An Initiative for Sustainable Mobility in Tourism (www.soft-mobility.com)

Building on an EU pilot project, "Sustainable Mobility in Tourist Destinations" which took place between January 1996 and July 1997, several European Ministries supported the creation of a Europe-wide Network for Sustainable Mobility in Tourism - NETS. NETS was founded in 1998 by the following groups, working on a more sustainable mobility in the Alps:

- Association for Sustainable Mobility, Austria
- G.A.S.T. - Association of Car Free Tourist Destinations
- IAKF - Association for Car Free Tourist & Spa Destinations in Bavaria

NETS members/partners are from European countries, among them, Germany and Austria. They are: tourist destinations with sustainable mobility enterprises, travel and mobility service providers, public institutions,

Ministries, NGOs, and other networks promoting environmentally friendly mobility in tourism. In order to become a member of NETS, certain criteria must be met. The main purpose of NETS is to be the primary contact for matters relating to "Sustainable Mobility in Tourism" in Europe, for its members, marketing partners, and everyone interested in sustainable, quality tourism. Tourism and transportation experts are invited to exchange knowledge and experiences of pilot projects. Sponsors are welcome to support endeavors for developing sustainable tourism.

The overall objective of NETS is to improve the quality of vacations and the environment as well as to raise the standard of living for both guests and locals. NETS partners develop and promote environmentally sound and sustainable tourism packages of high quality and improve their competitiveness in the tourism market. NETS supports members with the following services and activities: information and "how to" exchanges; lobbying and promotion of environmentally friendly mobility in tourism; development and consultation services; marketing services and PR; organization of workshops and seminars.

Sustainable Mobility – Car free Tourism in Austria

The project was initiated by the Ministry for the Environment and is carried out together with two other Ministries, the Ministry for Transport and Science and the Ministry for Economic Affairs, as well as two model communities and the Province of Salzburg. Two communities were selected for the project: Bad Hofgastein and Werfenweng, both situated in the Province of Salzburg.

The five-year project started in 1998. It has an advisory board consisting of all project partners, which has the task of coordination and financing. Local coordinators supervise the implementation of the measures in the communities. Public-private-partnerships are established in the field of transport services, electric vehicle manufacturers, logistic and telematic enterprises, energy industry as well as tourism organisations and travel agencies. The implementation of all measures of the model project will afford financing funds of about 8 million ECU.

Bad Hofgastein

Bad Hofgastein has 6,000 inhabitants and is situated 850 m above sea level in the spacious Gastein valley, which is surrounded by mountains up to 3,000 m high. With about 8,000 beds and 1 million overnight stays per year, Bad Hofgastein is among the ten most tourism-intensive communities in Austria. About 90% of the visitors are German and Austrian. Car-free travel to Bad Hofgastein is easy because the community is situated on the Tauern railway, the main connection between Munich and the South. The only problem is that the railway station lies 2 km off the city center. This affords a change to bus or taxi. A private bus service therefore connects the railway station with the city centre. The city centre has been redesigned during the last years. A pedestrian zone was implemented and only few vehicles like the city bus are allowed to enter it. Delivery of goods is allowed between 7:30 and 10:30 a.m.

Traffic management has been implemented in the residential and hotel area around the pedestrian zone. This helps to avoid through-traffic in those areas. Each point in Bad Hofgastein now can be reached only from one of the three entrances to the city. The number of parking spaces in the streets is very low, since parking is provided at the edge of the city and in an underground car park. Two free bus lines serve the city center. In winter, ski-buses connect the city with the stations of the ski lifts.

Werfenweng

Werfenweng is situated about 45 km south of the city of Salzburg on a plateau above the Salzach valley. It lies 1,000 m above sea level and has 650 inhabitants. The settlement consists of scattered groups of houses. 1,800 beds are offered and about half of the 190,000 overnight stays per year are counted during the winter season. As Werfenweng has not got a railway station of its own, the community is implementing several measures to improve its connection to the railway stop in Bischofshofen, which is in 14 km distance from Werfenweng. A dial-

a-taxi-service has been established, called Werfenweng-Shuttle, and a luggage logistics program will soon be developed. In 1997 two electric vehicles were bought and now are offered in a local public car-sharing project. The cars can also be rented by visitors who arrived without their own car.

Project components

The following measures are implemented as part of the project:

- The establishment of a mobility management centre is a cornerstone of the project. It will promote integration between various means of transport, and travel information, and provide transport services including demand-oriented dial-a-bus-systems, booking and coordination for the car-sharing programme, and rental of bicycles and sports equipment.

- Streets will be redesigned to be more pedestrian- and cycle-friendly. This will allow visitors and inhabitants to walk unimpeded everywhere in the communities. Pedestrians are given priority to cyclists and motorized vehicles. The speed of motorized traffic will be adjusted to that of pedestrians. Cycling will be an important means of travel for visitors and inhabitants. It will be possible to rent bicycles e.g. from hotels or at public service points like the tourist information or the railway station. Public transport services will also transport bicycles. A network of cycling routes is prepared and information material on it will be provided.

- Information packages on car-free travel, and attractive car-free travel services will be provided. To relieve the visitors from their heavy load, a concept of door-to-door luggage logistics is implemented. Sports equipment will be offered for rent.

- Regional public transport is being improved, including railway, buses, taxis, lifts and the electric-car-rental. Information about regional car-free mobility will be provided, including an information map and suggestions for excursions using public transport.

- To allow environmentally sound freight delivery, a freight logistic concept is elaborated and a freight delivery center will be built on the edge of Bad Hofgastein.

- Conventional cars will be replaced by zero-emission-vehicles as far as possible. The aim is to finance the additional costs (compared to the costs of conventional vehicles) of 100 zero-emission-vehicles. It is also planned to replace the two now diesel-powered city buses in Bad Hofgastein by electric buses.

- An integrated travel information and booking system will be created. Upon entering a home address and an address for the desired destination, a user of the travel information system will be able to retrieve information about all options for car-free travel to the desired holiday destination. The travel information system may also serve as a regional information system, and can be used to inform visitors about the best transport for excursions or about the availability of car-sharing. This travel information system will be simple and easy to use.

- The number of parking spaces in the streets will be reduced.

- A new quality product ”car-free tourism”, including “all-inclusive-packages” with transfer to and from train stations and door-to-door luggage services will be developed.

Acadia National Park Transit (www.exploreacadia.com) (Cambridge Systematics, 2002)

Mount Desert Island, Maine, is home to Acadia National Park, a 40,000-acre preserve of forests, mountains, lakes, and coastline. It receives nearly three million visitors annually. More than 90% of visitors arrive between

May and September. In recent years, park officials have become concerned that growing traffic and parking problems are making access to the park more difficult, detracting from the visitor experience, and posing a threat to the environment. Not only is the park itself at risk, but so are the island's four small towns, Bar Harbor (the commercial center), Southwest Harbor, Mount Desert, and Tremont.

In response, a seasonal shuttle bus service was introduced in 1999, serving both Acadia and the Mount Desert Island community. Called the Island Explorer, the service is a public-private partnership involving federal, state, and local agencies, as well as non-profit private partners. Its purpose is to permit continued growth in tourism without continued growth in traffic congestion and vehicle emissions. At the same time, it enhances the visitor experience by providing a convenient and less stressful alternative to driving. On board the Island Explorer, visitors can meet and socialize, or watch the scenery without worrying about missing the turnoff to the campground. Additionally, hikers can trek across the park's many one-way trails without having to loop back around to their cars.

As early as the late 1980s, an Acadia National Park general management plan identified traffic congestion and transportation needs as pressing issues. A transport feasibility study determined that a truly effective solution to the problem would serve both the park and the local community, whose interests were intertwined. Three potential solutions were considered: adding new parking lots, limiting the number of private vehicles allowed in the park, and introducing a fixed-route shuttle bus service. Because neither the park nor local residents favored additional parking, this option was definitively put aside. Vehicle quotas were seen as a somewhat drastic measure, one that should not be taken before efforts to convince visitors to voluntarily reduce automobile use had been made. This left the third solution, a shuttle service, as the most viable alternative.

In the mid-1990s, the Mount Desert Island League of Towns and a representative of Acadia National Park, started to develop the shuttle program. They hired a local transportation consultant, who wrote a proposal that received funds from the Congestion Mitigation and Air Quality (CMAQ) Improvement Program to purchase an initial eight buses and pay a portion of their operating cost. In 1999, the Island Explorer shuttle service was born with seventeen vehicles on seven routes connecting hotels, inns, campgrounds and nearby village centers with Acadia National Park in Maine. It carried 142,000 passengers during its 76-day first season. In 2000, ridership increased to 193,000, and in 2001 to 240,000.

Propane-powered buses serve seven island routes during the months of June, July, and August. These routes link destinations inside the park to hotels, inns, campgrounds, shops, and restaurants in all four island towns. The routes also serve the Hancock County Airport in Trenton, the Bass Harbor state ferry terminal, and the Bar Harbor international ferry terminal, which provides high-speed catamaran service to Nova Scotia. The Island Explorer is operated by Downeast Transportation, Inc., a non-profit transit company that contracts with the Maine DOT. Since 1994, Downeast has successfully operated a bus route serving campgrounds along State Route 3 on Mount Desert Island, including Blackwoods Campground in Acadia. In fact, the campground shuttle bus service provided the model for the expanded island-wide system.

The Island Explorer relies on a variety of funding sources. The most important of these has been the National Park Service, which has provided both direct funding of capital and planning efforts, and entry fees for operations. CMAQ funds were used to pay for the first eight buses and part of the operating costs. Other important contributions come from the U.S. DOT, the Maine DOT, the National Park Service, local municipalities, local businesses, and Friends of Acadia (a private, non-profit park support organization). Hotels pay a fee in order to have the bus stop at their front door. The local chamber of commerce solicits donations as well. In 2000, nine more buses were purchased using Federal Lands Highways Funds, bringing the total to 17. "The system gets a little bit better each year," Len Bobinchock, Acadia's deputy superintendent says proudly. "But it still needs to grow." In 2002, thanks to joint funding from the U.S. DOT and the Department of the Interior, all buses will be equipped with automatic vehicle location systems. Electronic departure boards located on the village green and

at popular stops in the park will inform users when the next shuttle is due to arrive and depart.

What lies behind the Island Explorer's remarkable success? The shuttle was carefully designed to offer a number of advantages over the private automobile, advantages that would make park visitors *voluntarily* leave their cars at their campground or motel. "Don't expect someone to make a personal sacrifice," planner Tom Crikelair warned at the start of the project. "Is the service you're envisioning good enough for *you* to use? If it isn't, tourists won't use it either."
Visitors are encouraged to use the Island Explorer because:

- Vehicles are clean, modern, and efficient. Twenty-eight passenger, fully accessible transit buses were purchased specifically for the service. Each bus in equipped with two bus racks with a capacity to transport four bicycles. The buses burn propane fuel, producing fewer emissions and less noise than diesel buses.
- The service provides a direct connection with most motels and campgrounds on Mount Desert Island at 30- or 60-minute intervals. Ideally, service would be more frequent on certain routes and at certain times, but the number of available buses proves the limiting factor.
- The service is "farebox free" for both passengers and their bicycles. That is, no fare is collected on board. An Acadia National Park visitor survey found that 48 percent of visitors surveyed would use a free shuttle bus service, but only 25 percent would use a bus if a fee were collected at boarding. Acadia's experience operating a more modest campground shuttle service prior to the Island Explorer bears out these statistics. In 1996 roughly 2,000 campers rode the shuttle, paying a two dollar fare to do so. The following year, when the fare had been eliminated, ridership reached 12,000. Ridership rose again to 15,000 in 1998, the second year after the change.
- The service is promoted extensively. A marketing plan, including visitor guides, maps, timetables, posters, public service announcements, and television and radio messages were all developed. In 1999, more than 50,000 copies of the visitor guide were printed and inserted into the park's newspaper, the *Beaver Log*, and 70,000 visitor guides were produced as stand-alone items. Advertising campaigns rely on positive reinforcement, rather than stern language. "We advertise by showing people that if they use the service they can have a better experience," Bobinchock explains.
- The Island Explorer is strongly supported by the Maine Office of Tourism and the Maine Department of Tourism.

The shuttle benefits visitors to Acadia because it allows more people to experience the national park each summer than could otherwise if the private automobile were the only form of island transportation. The shuttle benefits local residents and businesses because it increases tourism revenues without increasing the strain on the island's overburdened transportation infrastructure.
"The Island Explorer is a great service," avows Bar Harbor's town manager, Dana Reed. "We hope it is continued, and expanded into the shoulder season." In the future, Reed hopes that car-free travel options *to* Mount Desert Island will increase, as various transportation providers realize their own customers will not need a car when they reach their destination. For example, Vermont Transit Lines provides direct motorcoach service to Bar Harbor from New York City via Boston and Portland, but offers just one daily arrival and departure. Cruise liners frequently make Bar Harbor a port of call (approximately 47 cruise ships docked at the international ferry terminal in 2001), but usually do not remain long enough for passengers to fully explore the island on their own.

The future of the Island Explorer is clouded only by concerns over how to pay for service expansions to meet growing demand. It is not unusual for demand to exceed the capacity of the buses, typically in late afternoons when visitors return to their campgrounds and motels. At times, the on-board bike racks also become filled, forcing bicycle riders to wait for the next bus. Planners are hoping to purchase eight more buses, perhaps with more capacity than the current 28 seats. They also are hoping to lengthen the operating season. One source of funding, that is favored by Friends of Acadia, would be a transit fee added to the existing Acadia National Park entrance fee. This would provide a dedicated source of revenue, allowing the park to cover 75 percent to 90 percent of the Island Explorer's costs. The dollar contribution of the Mount Desert Island towns would remain the

same, but their percentage contribution would decline.

The possibility of year-round, separately funded shuttle service has also been invoked. This would benefit Mount Desert Island's sizable workforce that commutes every day from off-island. A feasibility study in now underway, funded in part by Jackson Laboratory, the region's largest employer.

Eventually, planners hope to create a transit hub and visitor center outside of Bar Harbor, perhaps off the island altogether. This would be a tremendous convenience to day-trippers, who would not need to search for parking spaces in downtown Bar Harbor or inside the park before boarding the shuttle. Natchez, Mississippi (population 18,000) has recently taken this approach to traffic management, building a transit hub/visitor center on the outskirts of the historic city in order to intercept visitors arriving on the main highway before they find themselves driving down Natchez's narrow, congested streets.

Greater Sedona Transportation

The Sedona/Red Rock region in northern Arizona is a popular destination for tourists who are attracted by its spectacular Red Rock cliffs, expanses of forest and grasslands, rushing rivers and striking canyons. The area has approximately 14,000 residents and 4-5 million annual visitors driving 2.5 million cars through Oak Creek Canyon each year, with a doubling of visitors projected in the next two decades. Currently, the only viable way for most people to get to or around Sedona is by car.

The City of Sedona, Yavapai and Coconino Counties, the Coconino National Forest, the Northern Arizona Council of Governments (NACOG) and the Arizona Department of Transportation (ADOT), with technical assistance from the Community Transportation Association of America, are exploring innovative and cost effective ways to manage transportation to enhance the region's livability and preserve its cultural and environmental assets. These efforts will control automobile access to scenic sights and areas within the Coconino National Forest, promoting a balanced choice of transportation options for residents and visitors, including limited highway and parking facilities, establishing a convenient public shuttle system, and pedestrian improvements.

The transportation plan is designed to increase travel choices and enhance visitors' experience. Most in town restaurants and businesses will be accessible by shuttle. Hotels and resorts would serve as staging areas for trips to scenic sights or up the Canyon. A network of gateway centers coupled with a downtown transit hub will serve as collection points for people heading for recreation spots, state parks, trailheads, shopping excursions and other outings. Visitors who arrive by air or shuttle bus would be able to get around without the need of rental cars. Many visitors to Red Rock country pass through Sedona on chartered tours. While these "package" visitors currently depend upon tour operators or jeep companies to get around locally, the availability of a low-cost public shuttle, with proper marketing and promotion, is expected to entice many independent travelers to remain a day or two in the area. The scenic shuttle system will provide the transportation link between many major visitor destinations in the area. The following actions are being planned or implemented to support this plan:

- *Public Shuttle System*: The City will take the lead role in jointly developing a community shuttle system—the centerpiece of the strategy for increasing mobility and access to the region's most important attractions while reducing reliance on the automobile. The shuttle system will be designed to provide frequent, convenient and accessible service within Sedona, between the Village of Oak Creek and the Uptown area, including key attractions within the Red Rock area, and throughout Oak Creek Canyon.

- *Shuttle Stops*: In-town shuttle stops will be designated adjacent to core commercial areas, major motels and resorts, municipal offices, medical offices and parks. Passenger shelters, benches and other "street furniture" would be constructed, adding to the transit system's convenience and attractiveness to both passengers and non-passengers.

- *Street Configuration*: The City will enhance auto, bicycle and pedestrian access to the shuttle system. The

street system needs to be interconnected and provide alternate routes between core business areas and surrounding neighborhoods without requiring use of major highways.

- *Bicycle/Pedestrian Connections*: Travel by foot or bicycle will need to be facilitated for shuttle passengers at either end of their trip. A key element of a successful transit system will be a convenient network of sidewalks, jogging paths and bike pathways serving shuttle stops.

- *Transit-Oriented Development*: Transit-oriented development and transit-friendly land use would be promoted through a mix of housing densities and higher intensity development in locations easily served by transit.

- *Parking*: City officials will need to manage parking to reduce congestion and promote transit ridership, including limiting right-of-way parking, create a central parking district, and encourage visitors' to leave their cars at park-and-ride lots and resorts. Forest officials are prepared to limit parking in a number of scenic areas within the national forest. Limits would be placed on roadside parking along two highways that run through Oak Creek Canyon and the Red Rocks scenic area. These limits will serve as an incentive for the shuttle system and will help address safety, water quality and other resource issues. A coordinated plan for shuttle and controlled parking will be developed to ensure sufficient access to trailheads, residences, businesses, and developed recreation areas, with the intent of providing strong incentives for forest visitors to leave their private vehicles behind and use a shuttle service.

- *Permit System*: The Forest Service is considering implementing a "parking pass" or "passport" for drivers accessing the public lands. Studies indicate that this system could provide significant revenue to support the infrastructure of a shuttle system. At the same time, these methods can be used to encourage visitors to use a shuttle system rather than paying for parking. Subsidized seasonal or annual passes would be available for Sedona area residents.

- *Enhancements*: Shuttle stops will be designated at one mile or less intervals within the Canyon and at vista points elsewhere. Appropriate vehicle turnouts, parking and loading areas, passenger shelters and information kiosks at each stop will also have to be constructed.

- *Pathways*: It is also contemplated that shuttle stops would be connected by pathways, allowing people the convenience of taking the shuttle, bicycling or walking to various destinations along the way within the recreation areas.

- *Gateways*: The partnership between jurisdictions will also allow the development of a network of "gateway" centers and "orientation" sites to serve visitors entering the area. At least four gateways are contemplated. Each would serve as possible "orientation sites", and serve as visitor information centers, day and long-term parking facilities, and transfer points to access the shuttle.

Various funding strategies are being considered for this program. Daily charges could be applied for parking on road right-of-ways. Visitors would be encouraged to leave their cars in motel and Inn parking lots, while free or reduced priced parking also would be available at Gateway Centers and other designed areas. Shuttle passes would be available for sale on a daily, seasonal or annual basis. The following rate schedule has been proposed for shuttle bus service:

- $2.50 Daily Visitor Pass
- $10 Monthly Resident Pass
- $1 Trip Ticket

An alternative is to fund the shuttle system with a national forest entrance fee. Visitors could either purchase a lower-price pass that would allow travel through the area, or visitor "Passport" that would allow entry to the forest, scenic attractions, and recreational facilities, and unlimited use of the shuttle system. Local residents

could obtain free or subsidized passes to ride the shuttle.

Talerbus (www.movingtheeconomy.ca)

The Lungau region of Switzerland contains ecologically rich valleys that attract thousands of people each month. With this increased tourism comes car traffic, which contributes to air, noise and water pollution in the area. The highly fragile nature of Alpine ecosystems means that these problems are a significant concern. In 1989, Professor Hocevar, a biologist concerned about these increasingly negative impacts, began work on the Talerbus project. This project provides electric vehicles, minibuses and taxis to take visitors up the narrow valleys. Talerbuses provide the sole means of access for many of these areas.

The talerbus service is integrated with regional bus services under the regional timetabling system, which enables visitors to plan round trip expeditions and to access the talerbuses from towns throughout the region. Those arriving outside of timetabled hours can use a taxi. Stops in the valleys connect to hiking trails and ski lifts.

Over 300,000 people each year use the Talerbus service, including tourists, local residents and school children. The scheme has now been expanded into the neighbouring region of Murau, allowing more hikers to visit the area without using their cars. Plans are now underway to close valley roads to private car traffic, or to charge cars for entering the valley, as is done in the "Lessachtal" valley.

Car-Free Tour Book (www.whisky-jack.com)

For less than the price of a tank of gas, *BC Car-Free* (Grover, 2001) will introduce you to the finest in outdoor recreation that coastal British Columbia has to offer. All excursions begin in Vancouver, British Columbia and can be undertaken without a car, using public transportation. More than 100 trips are describes, including hiking, kayaking, backpacking, cycle touring, whale watching, horseback riding, birding, river rafting, canoeing and cave exploring.

MOST (Mobility Management Strategies) (http://mo.st)

MOST is a European partnerships to encourage sustainable transportation, with special programs dealing with travel related to tourism, medical services, education and special events. It's main aim is to develop and evaluate Mobility Management (MM) strategies. It is a combined research and demonstration project. MOST is sponsoring a number of case studies and examples of tourist mobility management, some of which are described below.

Málaga Spain

Málaga, Spain (570,000 inhabitants) is the Capital of the "Costa del Sol," one of the larger tourist areas of Spain and the European Union. Each year about 5 million tourists arrive by plane or train, and about 4 million arrive by car. After extensive analysis in the main tourist intermodal points and cultural sites the following actions have been pre-selected to be implemented during the second term of 2001:

- A tourist mobility plan
- A new tourist bus line
- Internet online tourist transport information
- Tourist maps and leaflets
- Implementation of a mobility centre.

Sintra, Portugal

Sintra, located 30km from Lisbon, is the fourth biggest municipality of Portugal, with 320,000 inhabitants. UNESCO declared Sintra a World Heritage Site in 1995. An important historical, cultural and nature site, consisting of 4 different nuclei and the natural parks. Sintra is one of the most important tourist attraction in Portugal with 1-1.5M visitors each year, most of whom stay for less than half a day. Around 11 % of the tourist

trips are made by coach and 89 % by private car. Although the railway terminal is located only 1 km from the old town, the number of tourists using this suburban line to Lisbon is negligible. Given the present road network, physical conditions and lack of alternative itineraries, all tourists arrive at and transit the old town which has no parking facilities to speak of (saturation of traffic). New mobility management measures include:

- Installation of park and ride facilities near bus and train stations.
- Setting up of cycling and walking tracks.
- Mobility information via Internet.
- Establishment of a mobility centre.
- Rental bicycles in the city centre.

Zug, Switzerland

The Canton of Zug is located in the central part of Switzerland. Zug is a small Canton with 100,000 inhabitants, accessed in 30 minutes by car and train from the city of Zurich. It is an important leisure destination, especially on weekends for people living in the region. Although the most important leisure areas are well connected by public transport and by the regional bike-path network, most visitors arrive by car. This project aims to promote the use of sustainable transport modes in leisure traffic with the implementation of new mobility management services. New services will provide information to visitors on ways to reach this area by public transport or by bicycle (using the existing Zug Tourism website) and by promoting car-free weekend tourism.

Tourist Park And Ride (Anderson, Das and Tyrrell, 2006)

A survey of visitors to Newport, Rhode Island found that many tourists would be willing to park and use transit rather than drive, provided that these options are affordable, convenient and pleasant, with relatively low parking fees and transit fares, fast travel times, good walking conditions at destination areas, and attractive scenery along the transit route.

National Park Road Toll (Steiner and Bristow, 2000)

A survey of visitors to the Yorkshire Dales National Park indicates that more than 2/3 of respondents support a road toll with revenues used to support a Park & Ride transit service through the park. The survey indicates that given a fee of £2.00 per vehicle, a bus fare of £0.90, and 5 minute headways, about half of current car trips would be reduced, with 34% using the transit service and 17% shifting to other destinations.

Santa Barbara Car Free Vacations (www.santabarbaracarfree.org)

The Santa Barbara Car Free Project offers a Car Free Vacation Package featuring discounts from 17 hotels and 10 car free activities. “Let someone else do the driving and enjoy America's RivieraT car free and carefree,” says Mary Byrd, Project Manager with the Santa Barbara County Air Pollution Control District (APCD), the lead agency for the cooperative partnership, which encourages car free travel to and around Santa Barbara to promote cleaner air. Visitors can receive information on hundreds of car free options and a special map with full details.

Visitors can arrive in Santa Barbara by train, plane, bike, boat or bus-or by auto and leave it parked awhile-and enjoy discounts on hotel stays and car free activities. As a special early bonus, visitors can receive an AmtrakR Free Companion Fare coupon for travel on the Pacific Surfliner or Coast Starlight trains serving Santa Barbara. (Restrictions apply.)

By mentioning the “Santa Barbara Car Free Vacation Package” when making a reservation, visitors will receive significant discounts of 10-50% off regular room rates at various hotels and resorts (Some restrictions apply, rooms subject to availability). Then, upon hotel check-in, guests will receive a CAR FREE-bies gift envelope with maps, luggage tags and a list of special activity discounts for tours, whale watching cruises, bike & kayak trips,

trolley sightseeing tours, catamaran cruises, rollerblade rentals and wine country excursions.

Copenhagen Free Bike Program (www.cios.com)

In 1995, the Free City-Bike Program was implemented by the City of Copenhagen. One thousand specially designed free City-Bikes were stationed at 120 stands around the City at train and subway stations, parking lots and large housing blocks. The bikes were also stationed around common final destinations, such as office buildings, shopping districts, parks and other tourist attractions. For a deposit of only 20 Dkr. (US$3), anyone can take a bike and cycle wherever they want, within downtown (restricted area). When the bike is returned to any bike stand within the area, the user gets their deposit back. With the cooperation of sponsors, the project went so well that 500 more bikes were added when Copenhagen was named the "European Culture City" in 1996. The number of bikes increased by 300 in 1997 and 300 in 1998 for a total of more than 2,000 bikes. 38% of users are tourists.

South Beach, Florida

South Beach comprises the southern third of the city of Miami Beach, located on an Atlantic barrier island separated from the mainland by Biscayne Bay. It has a population of about 100,000 in an urban region with a total population of about 4 million residents. In addition to being a bedroom community it is a national tourist destination, with a core business and entertainment district that is on the National Register of Historic Places.

In order to deal with growing traffic congestion and parking problems the community established the SoBe TMA to coordinate transportation management activities. Specific projects include:

- Establish a shuttle bus system with 5-10 minute headways to link fringe parking with the Historic District.
- Implement parking management, such as park-and-ride lots, improved signage, and pricing.
- Develop a marketing and promotion program, including a Miami Beach Mobility Map that will show municipal parking areas, bikeways, water taxis, and transit routes between common destinations in the region.
- Pedestrian and bicycle facility improvements.

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